AUDIO

WX100 Series
Installation-grade Wireless Microphone System

featuring the
WX160 A/V Desk stand transmitter



WX100 Series

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Wireless Microphone System

WX100 Series

The new WX100 UHF Wireless Series from CAD Audio provides the A/V installer with straight-forward and intuitive form factors, ultra-reliable high performance wireless connectivity and superior audio bandwidth.

The WX100 was designed using the latest wireless technologies and industry-leading diversity performance to ensure the highest standards in connectivity in the most congested RF environments.

In addition to superior connectivity, the WX100 features a familiar and intuitive control scheme that allows easy, problem-free operation by casual non-professional users. The WX100 transmitters' uncomplicated form factors make it easy to identify various features, operate on/off switches, change and recharge batteries.

These designs along with an array of useful accessories make the WX100 a perfect solution for A/V suites, flexible meeting spaces or any situation that requires easy to use, highly reliable wireless.



Specifications WX100 Receiver

Maximum Output Level	
Balanced Output	-10bBV
Unbalanced Output	+10dBV
Output Impedance	
Balanced Output	200ohms
Unbalanced Output	100ohms
RF Bandwidth	38.4MHz
Switchable Frequencies	16
RF Sensitivity	-95dBm >75dB S/N
Image Rejection	>85dB
Squelch	Noise Squelch and Tone Squelch
Multipath Mitigation	True Spatial Diversity
Dimensions	7-7/8" [200mm] x 5-7/8" [150mm] x 1-3/4" [44mm]
Net weight [mass]	1lb 5oz [0.6Kg]

WX160 Desk stand

The WX160 is a desk stand transmitter designed for use in pro audio A/V applications. The WX160 accommodates various length goosenecks and is optimized for use with the CAD 915B and CAD 920B. Designed with intuitive and flexible programmability the WX160 fulfills requirements for easy operation and custom applications. The WX160 has two user defined mute options. Power up "on" or Power up "off" and is complimented with easy to use latching or momentary switches. The WX160 is designed to accommodate alkaline or rechargeable batteries.



Specifications WX160 Desk stand with 915B/920B gooseneck mics

Operating Principle (915B/920B)	Condenser
Polar Pattern (915B/920B)	Cardioid
Frequency Response	150Hz - 15KHz
Maximum SPL	118dB
RF Transmitter Output	50 mW maximum
Modulation	FM, +/- 40KHz peak
Dimensions	1-15/16" [50mm] x 22-3/16" [111mm] x 5-13/16" [148mm]
Net weight [mass]	1lb 6.8oz [0.65Kg] (without batteries)
Power Requirements	2 "AA" size alkaline or rechargeable batteries
Battery Life	>10 hours (alkaline)

301 Lavalier



The 301 is a cardioid condenser lavalier microphone designed for high performance where linear response translates to superior gain before feedback. Supplied with clip and windscreen.

Specifications 301 Lavalier (with WX155 and WX100)

Operating Principle........ Condenser
Polar Pattern........ Cardioid
Frequency Response........ 80Hz - 15KHz
Sensitivity (MT max, XLR output)........ -25dB (58mV) @1Pa
Impedance........ 200ohms
Maximum SPL (MT min)........ 114dB
Connector........ TA4F-type

302 Headworn



The 302 is a hypercardioid condenser headworn microphone designed with dual-ear comfort ensuring a stable and comfortable fit. The 302 combines high-sensitivity with high sound pressure capability to accommodate successful performances, boardroom to stage.

Specifications 301 Headworn (with WX155 and WX100)

Operating Principle........ Condenser
Polar Pattern........ Hypercardioid
Frequency Response........ 80Hz - 17KHz
Sensitivity (MT max, XLR output)........ -23dB (73mV) @1Pa
Impedance........ 200ohms
Maximum SPL........ 125dB
Connector........ TA4F-type

WX155 Body-pack



The WX155 is a body-pack transmitter designed for use in pro audio A/V applications. The WX155 features an uncomplicated on/off switch with Smart Audio Technology ensuring silent on/off operation. The WX155 is designed to accommodate alkaline or rechargeable batteries.

Specifications WX155 Body-pack

Frequency Response	25Hz - 15KHz
Maximum input level	Microphone input: -6dBV Instrument input: +6dBV
RF Transmitter Output	50 mW maximum
Modulation	FM, +/- 40KHz peak
Dimensions	3-15/16" [10cm] x 2-5/8" [6.6cm] x 1" [2.5cm]
Net weight [mass]	3.4oz [0.1Kg] (without batteries)
Power Requirements	2 "AA" size alkaline or rechargeable batteries
Battery Life	>10 hours (alkaline)

WX150 Handheld



The WX150 is a cardioid dynamic handheld microphone designed for use in pro audio A/V applications. The WX150 features an uncomplicated on/off switch with Smart Audio Technology ensuring silent on/off operation. The WX150 is designed to accommodate alkaline or rechargeable batteries.

Specifications WX150 Handheld

Operating Principle	Moving coil dynamic
Polar Pattern	Cardioid
Frequency Response	80Hz - 15KHz
Maximum SPL	146dB (sensitivity level "1")
Dynamic Range	115dBA
RF Transmitter Output	50 mW maximum
Modulation	FM, +/- 40KHz peak
Dimensions	9-5/8" [24.5cm] x 2-1/16" [5.2cm]
Net weight [mass]	8.3oz [0.24Kg] (without batteries)
Power Requirements	2 "AA" size alkaline or rechargeable batteries
Battery Life	>10 hours (alkaline)

DA100 Distribution Amplifier

The DA100 is an antenna distribution amplifier for the CAD Audio WX100 wireless receiver. The DA100 is designed for use in pro audio applications such as audio-video integration and musical/theatrical performance.

The DA100 features a net 0dB amplification eliminating split-attenuation when used in conjunction with the WX100 receiver. Minimal amplification is applied to reduce the risk of unwanted intermodulation interference.

The onboard power distribution system conveniently distributes 12V power for up to four of the WX100 receivers. The power switch on the DA100 also controls the WX100 receiver power when connected to the power distribution hub.

All antenna connectors are BNC-type for easy plug and play compatibility.

Antennas are not supplied with the DA100. Whip antennas supplied with the WX100 may be used and can be front mounted utilizing the ANT105 mounting kit. Additional high-performance antenna options are available from CAD Audio.

The DA100 comes complete with RF patch cables for four receivers, rack ears and the appropriate power cables for patching and connecting an AC power source.





Specifications DA100 Distribution Amplifier

Frequency Range	UHF 600 - 900MHz
Impedance	50Ω
Gain	0dB +/- 3dB
AC Power	100 - 240V, 60Hz
DC Output	DC 12 - 15V, 3.6A
Dimensions	16-1/2" [41.9cm] x 7-13/16" [19.8cm] x 1-3/4" [4.45cm]
Net weight [mass]	3lbs 7oz [1.56kg]

ANT105



ANT105



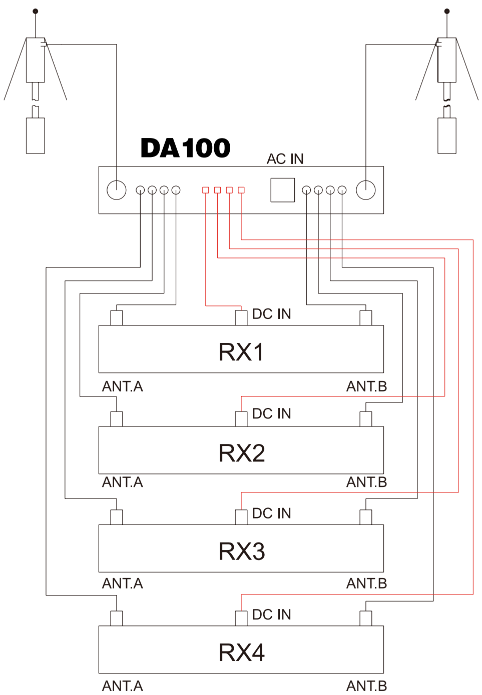
RF Connections



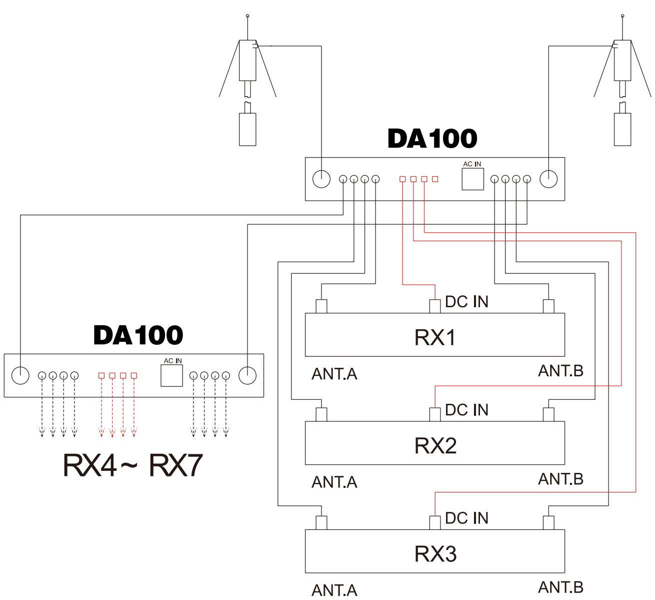
DC power distribution



- **Connection for up to 4 receivers.**



- **Connection for up to 7 receivers.**



Accessories

ANT100 Whip dipole Antenna



Specifications ANT100

Type	Dipole
Frequency Range	520 - 700MHz
Polarization	Vertical, when oriented vertically
Gain	2dBi
Impedance	50Ω
V.S.W.R.	< 2.0:1.0
Termination Type	BNC
Number of Elements	1
Dimensions	12" [30.5cm] x 1/2" [1.3cm]
Weight [mass]	1.4oz [40g]

ANT110 Ground-plane dipole Antenna



Specifications ANT110

Type	Dipole
Frequency Range	600 - 960MHz
Polarization	Vertical, when oriented vertically
Gain	3dBi
Impedance	50Ω
V.S.W.R.	< 1.6:1.0
Termination Type	BNC
Number of Elements	4
Dimensions	19-1/2" [50cm] x 3-3/4" [9.5cm]
Weight [mass]	1lb 13oz [0.82kg]
Mounting Connector	5/8"- 27 threaded stand connector

ANT120 Paddle Antenna



Specifications ANT120

Type	Log-periodic dipole array
Frequency Range	520 - 860MHz
Polarization	Vertical, when oriented vertically
Gain	7dBi
Impedance	50Ω
V.S.W.R.	< 1.7:1.0
Termination Type	BNC
Number of Elements	9
Dimensions	11-5/16" [29cm] x 10-5/16" [26cm]
Weight [mass]	6.3oz [0.18kg]
Mounting Connector	5/8"- 27 threaded stand connector

The HHC1 is a plug-in charger for the WX150 and WX155 transmitters. The HHC1 is designed for easy charging of AA NiMH batteries without being removed from the WX150 and WX155 transmitters.

The HHC1 features overcharge protection and indicator lights for when the transmitter is fully charged. The charger draws power from a standard A/C power outlet, power adapter provided.

HCC1 plug-in charger



Specifications HCC1 plug-in charger

Input Voltage 12VDC
Charging Time .... 10 hours maximum
Current Draw 17mA
Protection & Control .... Output short protection, current control and battery detect control
Operating Temperature .... 32°F - 131°F [0°C - 55°C]
Battery Type .... NiMH only
Display .... RED: charging - GREEN: battery full
Dimensions .... 2-7/16" [60mm] x 1-5/16" [34mm] x 1-1/8" [29mm]
Weight .... 1.3oz [35g]
Case .... ABS plastic

The BPC1 is a drop-in battery charger for the WX155 bodypack transmitter. It is designed for easy charging of AA NiMH batteries without being removed from the WX155 transmitter. The BPC1 features overcharge protection and charge status lights.

The units can be linked together utilizing the chassis keys on each side of the unit. The power can be daisy chained utilizing the DC In / DC Out plugs on the back of each unit. Maximum of four (4) units can be tied together with one power supply.

The charger draws power from a standard A/C power outlet, power adapter provided.

BPC1 drop-in battery charger



Specifications BPC1 drop-in battery charger

Input Voltage 12VDC
Charging Time .... 10 hours maximum
Current Draw 20mA
Protection & Control .... Output short protection, current control and battery detect control
Operating Temperature .... 32°F - 131°F [0°C - 55°C]
Battery Type .... NiMH only
Display .... RED: charging - GREEN: battery full
Dimensions .... 4-3/4" [120mm] x 3-15/16" [100mm] x 2-15/16" [74mm]
Weight .... 5-3/4oz [0.16kg]
Case .... ABS plastic

Individuals with cardiac pacemakers and other similar medical devices should consult with their physician before using any RF devices. Although the output level of this wireless system is below 50 milliwatts, the proximity of the transmitter to the implant device could pose a threat.

As with any wireless product, environmental conditions can reduce or in some cases prohibit a successful connection between the transmitter and the receiver. Contained within the manual of the WX100 is a list of trouble shooting and best practices guide for using our microphones and accessories.

Most users of CAD Audio wireless products in the United States do not need a license for operation. However, the rules for unlicensed operation state that this device must not operate in excess of 50 milliwatts, must not cause harmful interference to other wireless devices, and must accept interference received from other devices. Purchasers should also be aware that the FCC is currently evaluating use of wireless microphone systems, and these rules are subject to change. Wireless products meeting CAD factory standards adhere to these rules. The FCC reserves the right to change these rules at any time.

For more information contact the FCC at 1-888- CALL-FCC (TTY: 1-888-TELL-FCC) or visit the FCC's wireless microphone website at:

www.fcc.gov/cgb/wirelessmicrophones

Two-Year Limited Warranty

CAD Audio hereby warrants that this product will be free of defects in material and workmanship for a period of two years from the date of purchase. In the unlikely event that a defect occurs CAD Audio will, at its option, either repair or replace with a new unit of equal or greater value. Retain proof of purchase to validate the purchase date and return it with any warranty claim.

This warranty excludes exterior finish or appearance, damage from abuse, misuse of the product, use contrary to CAD Audio's instructions or unauthorized repair. All implied warranties, merchantability, or fitness for a particular purpose is hereby disclaimed and CAD Audio hereby disclaims liability for incidental, special or consequential damages resulting from the use or unavailability of this product.

This warranty gives you specific legal rights and you may have other rights that vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

Note: No other warranty, written or oral is authorized by CAD Audio.

Shipping Instructions

Please call our customer service department at 440-349-4900 for a pre-approved return authorization number.

Carefully repack the unit and return the insured package to: CAD Audio, 6573 Cochran Road, Building I, Solon, Ohio 44139. **RETURNS WITHOUT A PRE-APPROVED RETURN AUTHORIZATION NUMBER WILL BE REFUSED.** If outside the United States, contact your local dealer or distributor for warranty details.

CAD Audio 6573 Cochran Rd., Bldg.I Solon, OH 44139 U.S.A. Tel: (440) 349-4900 Fax: (440) 248-4904 Sales: 800-762-9266 www.cadaudio.com